

REMARKS

Reconsideration is respectfully requested in view of any changes to the claims and the remarks herein. Please contact the undersigned to conduct a telephone interview in accordance with MPEP 713.01 to resolve any remaining requirements and/or issues prior to sending another Office Action. Relevant portions of MPEP 713.01 are included on the signature page of this amendment.

Claims 21-24, 26-33, 35-49, 51-60 are presented for examination.

Double Patenting Objection.

Claim 59 has been objected to under 37 CFR 1.75 as being a substantial duplicate of claim 47. The dependence of claim 59 has been changed so that it is not a substantial duplicate. In view thereof withdrawal of this objection is respectfully requested.

Claim Rejections - 35 USC § 102 over Klersy

Claims 41, 44-46, 48-49, 51-57, 60 have been rejected under 35 U.S.C. 102(b) as being anticipated by Klersy et al. (U.S. Patent No. 5,933,365). Applicants respectfully disagree.

The Examiner states regarding claims 41-48:

Klersy et al. disclose an information storage device (Figure 1A-B) comprising: an array of magnetic memory elements (Figure 1A-B, Figure 3, 30, ABSTRACT, Column 3, lines 31-35);

Applicants respectfully disagree. The only reference to the term "magnetic" in Klersy is at Col. 3, lines 29-35, which teaches:

The electrically erasable phase change memories described in the Ovshinsky patents, as well as subsequent electrical solid state memory, had a number of limitations that prevented their widespread use as a direct and universal replacement for present computer memory applications, such as tape, floppy disks, **magnetic** or optical hard disk drives, solid state disk flash, DRAM, SRAM, and socket flash memory. (Emphasis added)

and at Col. 3, lines,29-35, which teaches:

In addition to set resistance stability, another highly important factor which would be required of a universal memory is low switching current. This is extremely significant when the EEPROMs are used for large scale archival storage. Used in this manner, the EEPROMs would replace the mechanical hard drives (such as magnetic or optical hard drives) of present computer systems. (Emphasis added.)

In both references to "magnetic" memory Klersy is not referring to the invention of Klersy but to one of a number of types of memory. Magnetic memory is one type of memory.

The Abstract of Klersy teaches:

An electrically operated, directly overwritable memory element comprising a volume of memory material having at least two electrical resistance values. The volume of memory material can be set to one of the resistance values in response to a selected electrical input signal

Klersy does not teach a magnetic memory by a "memory element ... having at least two electrical resistance values." Thus Klersy teaches a resistance memory. Klersy in the only independent claims 1 and 63 explicitly recites this. Since each of applicants' rejected claims 41,44-46, 48-49, 51-57, 60 recites "magnetic memory element" Klersy cannot anticipate these claims and in view thereof applicants respectfully request withdrawal of the rejection of Claims 41,44-46, 48-49, 51-57, 60 under 35 U.S.C. 102(b) as being anticipated by Klersy.

Claim Rejections - 35 USC § 102 over Hsu Chang

Claims 41, 46-47-52, 57-58 have been rejected under 35 U.S.C. 102(b) as being anticipated by Hsu Chang (U.S. Patent No. 3,573,760). Applicants respectfully disagree.

The Examiner states "[r]egarding claims 41, 46-47, Hsu Chang discloses a method of writing to a magnetic memory element of an array of magnetic memory elements (column 1, lines 5-14), the method of comprising: heating the memory element wherein the memory element is heated by passing a current through a conductor (Column 8, line 33, copper are heated to provide layers)." Applicants respectfully disagree. Hsu Chang Col. 8, lines 29-35,

teaches:

In one exemplary technique, the different layers of the element 1 of FIGS. 1--4 may be formed by evaporation and etching techniques. For example, using conventional evaporation apparatus, boats containing nickel, iron, cobalt, a dielectric and copper are heated to provide layers of a single material or layers containing any combination of the above-mentioned materials. (Emphasis added.)

Hsu Chang teaches heating "boats containing [a material] ... to provide" a layer of material. This is unrelated to "heating an element proximate to said storage cell for selectively changing the temperature of said changeable magnetic region of said storage cell" as recited in applicants' claim 41 and the claims dependent therefrom. This is unrelated to "said heating elements are included with said magnetic memory elements" as recited in applicants' claim 48 and the claims dependent therefrom. This is unrelated to "heating elements included in the devices" as recited in applicants claim 57. Thus Hsu Chang cannot anticipate claims 41, 46-47-52, 57-58 and in view thereof applicants respectfully request the rejection of claims 41, 46-47-52, 57-58 as being anticipated under 35 U.S.C. 102(b) by Hsu Chang (U.S. Patent No. 3,573,760) be withdrawn.

Claim Rejections - 35 USC § 102 over Ito

Claims 21, 23, 29-30, 39 have been rejected under 35 U.S.C. 102(b) as being anticipated by Ito et al. (U.S. Patent No. 6,029,895). Applicants respectfully disagree. The abstract of Ito teaches:

A magnetic recording medium, and a method of making the same, including an irreversible recording layer which undergoes an irreversible change of saturation magnetization upon heating. The magnetic recording medium includes on at least a portion of a substrate an irreversible recording layer which contains an irreversible recording material undergoing an irreversible change of saturation magnetization upon heating. The irreversible recording layer includes at least in part a fixed information recording region for recording the fixed information of the medium. In the fixed information recording region, a plurality of heated bars whose saturation magnetization has been irreversibly changed are arrayed substantially parallel to each other. The array pattern of the heated bars or the array pattern of unheated bars disposed between adjacent ones of the heated bars contains the fixed information encoded in a frequency modulation process or

phase modulation process.

Applicants' independent claims 21, 29 and 39 and the claims which depend therefrom recite "providing a storage cell comprising a changeable magnetic region." Applicants specification teaches at page 1, line 18, "Typically, each storage cell includes a magnetically changeable (reversible)." Emphasis added. Thus Ito cannot anticipate applicants' rejected claims since Ito teaches an "irreversible recording material."

Indication of Allowable Subject Matter

Applicants gratefully acknowledge the indication of allowability claims 24, 26-28, 31-33, 35-38, 40, 42-43, 47-58.

Please charge any fee necessary to enter this paper and any previous paper to deposit account 09-0468.

If the above-identified Examiner's Action is a final Action, and if the above-identified application will be abandoned without further action by applicants, applicants file a Notice of Appeal to the Board of Appeals and Interferences appealing the final rejection of the claims in the above-identified Examiner's Action. Please charge deposit account 09-0468 any fee necessary to enter such Notice of Appeal.

In the event that this amendment does not result in allowance of all such claims, the undersigned attorney respectfully requests a telephone interview at the Examiner's earliest convenience.

MPEP 713.01 states in part as follows:

Where the response to a first complete action includes a request for an interview or a telephone consultation to be initiated by the examiner, ... the examiner, as soon as he or she has considered the effect of the response, should grant such request if it appears that the interview or consultation would result in expediting the case to a final action.

Respectfully submitted,

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